



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/565,951

08/07/2006

Anthony Stevenson

INV850/4-32US/58012

3495

52059 7590 01/05/2009

INVITROGEN CORPORATION  
C/O INTELLEVATE  
P.O. BOX 52050  
MINNEAPOLIS, MN 55402

EXAMINER

HORLICK, KENNETH R

ART UNIT

PAPER NUMBER

1637

MAIL DATE

DELIVERY MODE

01/05/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/565,951	<b>Applicant(s)</b> STEVENSON ET AL.	
	<b>Examiner</b> Kenneth R. Horlick	<b>Art Unit</b> 1637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 16-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 5-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

1. Applicant's election without traverse of Group I, claims 1-15, in the reply filed on 10/14/08 is acknowledged.

2. Claims 16-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/14/08.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

5. Claims 5-15 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Art Unit: 1637

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. These claims are confusing because it cannot be understood how by “causing relative movement between the container and a filtration unit”, the “sample is made to pass through the filter into the filtrate chamber”. It is suggested that the nature of the movement be clarified in amended claims.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by either of Mori et al. (US 2004/0063121) or Baker (US 2003/0173284).

This claim is drawn to a method comprising: causing relative movement between a container having a sample solution with nucleic acids, and a filtration unit, the filtration unit being disposed at least partly within the container and having a filter and a filtrate

Art Unit: 1637

chamber, whereby the sample is made to pass through the filter into the filtrate chamber.

Mori et al. disclose a method which cannot be distinguished from what is being claimed. This document discloses inserting a filtration unit comprising a filter membrane and a filtrate chamber into a sample solution comprising nucleic acids, and sucking the solution to pass through the filter membrane and into the filtrate chamber (see Figs. 1-3 and paragraphs 0027-0028, 0057-0058, 0062-0063, and 0094-0131). It is noted that inserting the filtration unit into the solution and sucking up said solution satisfies the claim language.

Baker also discloses a method which cannot be distinguished from what is being claimed. This document discloses inserting a filtration unit comprising a filter membrane and a filtrate chamber into a sample solution comprising nucleic acids, and sucking the solution to pass through the filter membrane and into the filtrate chamber (see Figs. 1-2 and paragraphs 0003-0053). It is noted that inserting the filtration unit into the solution and sucking up said solution satisfies the claim language.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

Art Unit: 1637

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Mori et al. or Baker, and further in view of Colpan (US 6,277,648).

These claims are drawn to the method as described and rejected above, further wherein the filtration unit comprises at least upstream and downstream filters in series (claim 3), and further wherein the upstream filter has a higher size exclusion threshold than the downstream filter (claim 4).

The teachings of Mori et al. and Baker are discussed above. These references do not teach the use of a series of filters of different size exclusion thresholds.

Colpan discloses a method of isolating nucleic acids from a solution comprising the use of a filtration unit having a series of filters of different size exclusion thresholds (see Fig. 1 and columns 1-3).

One of ordinary skill in the art would have been motivated to use a filtration unit having a series of filters of different size exclusion thresholds in the method of either of Mori et al. or Baker because Colpan disclosed the benefit of using such a layered filter approach in the isolation of nucleic acids. It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to carry out the claimed methods.

9. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamlin (US 4,921,618) in view of Colpan.

The subject matter of claims 1, 3, and 4 is discussed above. Claim 2 further limits claim 1 in that an exterior surface of the filtration unit forms a seal with an interior surface of the container.

Hamlin discloses a device and method for simultaneous separation and transfer of liquids using a filtration unit (see Figs. 1-15 and columns 1-7). The use of this device satisfies all of the claim language, with the exception of application to nucleic acid purification (claim 1), and the use of a series of filters (claims 3 and 4). Hamlin teaches that “although the invention can be used for liquid-liquid separations, the present invention is most useful in the purification of liquids by filtering small solid particulates from the liquid” (see column 1, lines 9-12).

Colpan discloses a method of isolating nucleic acids from a solution comprising the use of a filtration unit having a series of filters of different size exclusion thresholds (see Fig. 1 and columns 1-3).

One of ordinary skill in the art would have been motivated to apply the filtration unit of Hamlin to purification of nucleic acids, and in doing so modify said filtration unit to have a series of filters of different size exclusion thresholds, because Colpan disclosed the well-known and conventional application of liquid filtration to purification of nucleic acids, as well as the benefit of using a layered filter approach therein. It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to carry out the claimed methods.

10. No claims are free of the prior art.

11. Henco et al. (US 5,057,426) is made of record as a reference of interest.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth R. Horlick whose telephone number is 571-272-0784. The examiner can normally be reached on Monday-Thursday 6:30AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on 571-272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenneth R Horlick/

Primary Examiner, Art Unit 1637

12/31/08